



State of Utah

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October 24, 1990

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Tom Munson, Senior Reclamation Hydrologist *TM*

RE: NOV #90-25-1-1, Co-Op Mining Company, Bear Canyon Mine,
ACT/015/025, Trail Canyon Mine, ACT/015/021-90G, Emery County,
Utah

Synopsis

Plans were received on October 18, 1990 addressing the concerns of NOV #90-25-1-1. This memo addresses the adequacy of this response and the time frame necessary to abate the violation.

Analysis

Area #1 - Canyon area below upper storage road and culvert C-8U.

Short Term Scenario #1

The operator proposes a silt fence be put in above the existing one for culvert C-8U. This is acceptable as long as a 60 percent clear out level is maintained on both silt fences. The implementation time frame of one week is acceptable.

Long Term Scenario #2

The long term solution is to direct the impacted drainage to the pond via ditch D-7D. This involves modifying and enlarging ditch D-7D. Calculations have been provided for ditch D-7D but are based on one slope of 18 percent. A longitudinal profile identifying various slopes and reaches to determine minimum slopes and maximum slopes for design purposes is required. A cross-section showing riprap installation and filter cloth or blanket will be required. At the point where ditch D-7D intercepts D-5D, riprap protection will be required.

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The enlargement of the pond using a two celled structure with the upper cell constructed with a ramp to facilitate cleaning is acceptable. A nonerodible riprapped or concrete grouted spillway between the pond is appropriate. The proper designs are expected to include stage-volume curves, stage-discharge curves, all inlet, outlet, bottom of pond, top of embankment elevations.

Area #2 - The hillside above the slope area, and the water tank overflow.

Piping the water tank overflow to Bear Creek via a buried 2" line is acceptable. This must be completed this year.

Implementing ditch D-7D and taking out culvert C-9U is essential to complete the treatment of the area above the shop area. Ditch D-10U will be redirected to sediment pond "A" via existing ditch D-5D and be extended to intercept ditch D-4D and ditch D-10U will then be redesignated ditch D-7D. This is acceptable, providing some additional design parameters are given on ditch D-7D, as spelled out in this memo.

Recommendation

1. The following design information for ditch D-7D will be provided by November 2, 1990.

- a. Minimum, Maximum slope calculations for various reaches of ditch D-7D.
- b. Protection measures (i.e. riprap location) for ditch D-7D.
- c. Longitudinal profile of ditch D-7D.
- d. Typical cross-sections for ditch D-7D showing installation designs for different reaches.

Implementation of approved designs be no later than November 28, 1990.

2. All sediment pond design changes be provided by November 26, 1990 with implementation to occur following approval in May 1991.

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